CLAIMS:

1. A radar apparatus for detecting an object comprising:

transmitting means for transmitting an electromagnetic wave; and

receiving means for receiving an electromagnetic wave reflected from the object,

wherein:

the radar apparatus has a first operation mode and a second operation mode requiring an energy consumption less than an energy consumption of the first operation mode; and

the first operation mode and the second operation mode are switched in accordance with an output signal from said receiving means.

2. The radar apparatus according to claim 1, further comprising:

A/D converting means for A/D converting a signal supplied from said receiving means; and

digital signal processing means for processing an A/D converted digital signal,

wherein:

the radar apparatus has a function of detecting one or more of a rate, a range and an azimuth angle of the object; and

said digital signal processing means has at least two operation modes, the first operation mode and the second operation mode and has a function of

switching the operation modes in accordance with a signal supplied from judging means for judging whether a received signal satisfies predetermined conditions.

3. The radar apparatus according to claim 2, wherein:

in the second operation mode, said judging means has a function of judging whether an amplitude of the received signal exceeds a predetermined threshold level and a function of changing an operation mode of said digital signal processing means from the second operation mode to the first operation mode.

4. The radar apparatus according to claim 2, wherein:

in the second operation mode, said judging means has filtering means and a function of changing an operation mode of said digital signal processing means from the second operation mode to the first operation mode, when an amplitude of the received signal passed through said filtering means exceeds a predetermined threshold level.

5. The radar apparatus according to claim 3, wherein said judging means has a function of counting a number of times when the amplitude of the received signal exceeds the predetermined threshold level.

6. The radar apparatus according to claim 2, wherein said judging means has a function of changing judgement conditions of said judging means and a function of setting the judgement conditions when said

digital signal processing means is in the first operation mode.

7. A radar apparatus for detecting one or more of a rate, a range and an azimuth angle of an object, comprising:

transmitting means for transmitting an electromagnetic wave;

receiving means for receiving an electromagnetic wave reflected from the object;

A/D converting means for A/D converting a received signal; and

digital signal processing means for processing an A/D converted digital signal,

wherein:

said digital signal processing means has at least two operation modes, a first operation mode and a second operation mode;

said digital signal processing means has judging means for judging whether the received signal satisfies predetermined conditions; and

said digital signal processing means has a function of changing an operation mode of said digital signal processing means from the first operation mode to the second operation mode in response to a command from said judging means.

8. The radar apparatus according to claim 7, wherein the radar apparatus has a function of changing judgement conditions of said judging means.

9. A radar apparatus for detecting one or more of a rate, a range and an azimuth angle of an object, comprising:

transmitting means for transmitting an electromagnetic wave;

receiving means for receiving an electromagnetic wave reflected from the object;

A/D converting means for A/D converting a received signal; and

digital signal processing means for processing an A/D converted digital signal,

wherein:

said digital signal processing means has at least two operation modes, a normal operation mode and a low energy consumption mode, and a function of inputting an operation mode switching signal from an external of the radar apparatus.

10. The radar apparatus according to claim 2, further comprising communication means for communicating with an external and notifying the external of a state of a normal operation mode and a low energy consumption mode.